

ABSTRACT

A laser emitting head for irradiating a portion to be machined with laser beams outputted from a laser unit (624) incorporates an emitting head body having a light guide member (625) in the head for guiding the laser beams; a light converging lens (677) for converging the laser beams transmitted from the light guide member in the head; a reflecting mirror (678) for irradiating the portion to be machined with the converged laser beams; mirror rotating means (684) for holding the reflecting mirror to be rotative around the optical axis of the laser beam; distance-adjustment means (674) for adjusting the relative distance between the reflecting mirror and the converging lens; and moving means (665) for moving the reflecting mirror and the converging lens such that the relative distance is maintained so that the light guide member in the head. The converging lens and the reflecting mirror can be introduced/discharged with respect to a portion to be machined and formed in a narrow gap in an incore structure. As a result, a preventive-maintenance/repair operation using laser beams and arranged to be performed in a narrow gap in the incore structure can safely and efficiently be performed.